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CENTRAL INTELLIGENCE AGENCY

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REPORT NO. 

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COUNTRY Czechoslovakia

DATE DISTR. 20 May 1955

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SOURCE Division of Territory

1. For agricultural purposes, the entire territory of Czechoslovakia was divided into four so-called "natural agricultural areas" -- the vegetable area, the sugar beet area, the grain area, and pasture land. This system of area division was the result of tradition and habit rather than scientific research and, therefore, was not completely accurate. The boundaries of the areas could not be clearly defined. Even the theory of basing the divisions on grain cultivation was inaccurate; actually, the percentage of grain cultivated was the same in both the sugar beet area and the grain area. Furthermore, the areas with the smallest amount of rainfall, situated in southern Slovakia, were classified as either sugar beet areas or vegetable areas although the largest percentage of grain was cultivated there. Since this area division system could not be used satisfactorily for the purposes of a planned agricultural production program, such as was introduced in Czechoslovakia with the 1947-48 Two-Year Plan, a geonomic survey was conducted under the auspices of the Ministry of Agriculture in order to establish a new system of area division.
2. The new system resulting from the geonomic survey used root crops instead of grain crops as a basis of division because the areas which specialized in a particular root crop could be more easily defined. In order to define the boundaries of individual areas even more precisely, the average yearly temperature, precipitation, and altitude above sea level were also considered. As a matter of fact, the cultivation of a particular root crop and the above-mentioned factors are consistently interdependent in Czechoslovakia, i.e., the lower the altitude, the higher the temperature and the lower the rainfall. The new system set forth four areas which were also known as "types":

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- a. The maize area which had an average yearly temperature exceeding nine centigrades, precipitation of about 500 mm. per square meter, and an altitude of less than 200 m.
- b. The sugar beet area which had an average yearly temperature of from eight to nine centigrades, precipitation from 500 to 600 mm. per square meter, and an altitude of 200 to 350 m.
- c. The potato area which had an average yearly temperature of from 6.5 to eight centigrades, precipitation from 600 to 800 mm. per square meter, and an altitude of 350 to 600 m.
- d. High altitude area which had an average yearly temperature of less than 6.5 centigrades, precipitation exceeding 800 mm. per square meter, and an altitude of more than 600 m.

The areas were outlined on survey maps, scale 1:1,000,000, and the maps, with the areas indicated, were reproduced in print. The territory of Bohemia and Moravia was included on one map; source believed that the area of Slovakia was shown on another similar map but he never saw such a map of Slovakia. The maps were kept by the Institutes for Agricultural Economics located in Prague and Brno.

3. The geonomic survey called for individual areas to be divided into various "sub-types", determined according to the quality of the soil within the area. The maize area called for the following sub-types: the maize-wheat sub-type for heavy soil, the maize-barley sub-type for medium soil, and the maize-rye sub-type for light soil. Sugar beet areas were similarly divided. Potato areas were also similarly divided with the addition of a potato-oats sub-type for very poor soil. The high altitude area called for two sub-types, one for medium soil and one for light soil. In order to determine the quality of the soil, a survey was conducted within the framework of the geonomic survey and was carried out by the local governments. Source did not know the accuracy with which this work was performed. The results of the soil survey were indicated on maps, scale 1:25,000, which were not reproduced in print but were kept in draft form at the above-mentioned institutes. The soil quality survey, except for a few instances, was not set forth in the geonomic survey and, therefore, there were no geonomic survey maps showing the sub-types, except for a very few instances. These exceptions involved only a few village areas in which the geonomic survey had been completed within the agricultural land adjustment program and the sub-types were indicated on maps, scale 1:25,000. The maps were in draft form only and were kept in the above-mentioned institutes.

#### Individual Areas and Optimum Utilization

4. The maize areas were located in southeast and southwest Slovakia, southern Moravia, and in a part of the Zatec (N 50-20; E 13-33) Region. Maize could be cultivated in these areas on an acreage amounting to 10% of the total arable land. All kinds of grain, with the exception of oats, could be sown on an acreage of from 50 to 52% of the total arable land, the production of wheat being slightly higher than that of rye. The production of potatoes and sugar beets was limited. The following special crops were cultivated: tobacco, hemp, ricinus ricinus, melons, grapes, apricots, peaches, walnuts, and vegetables requiring warm climate, such as paprika and tomatoes. The Communists introduced cotton and peanuts. These two crops were cultivated for trial purposes only by the Agricultural Research Station in Sesiles near Komarno (N 47-46, E 18-08). Rice was also introduced during recent years. The production of rice had

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progressed beyond the trial stage and it was available on the domestic market. Rice did not always ripen properly because the weather was not always warm enough throughout the year. It was cultivated mainly on Rye Island in southern Slovakia, and also in southern Moravia. A characteristic feature of the maize areas was a surplus of straw. On the other hand, the areas did not produce sufficient quantities of green fodder during years with little rainfall. Because of the sufficient quantities of maize produced, the production of swine was higher here than in other areas.

5. The sugar beet areas were the most fertile in Czechoslovakia and were located along the Elbe, Vah, and southern Morava rivers, in the western part of central Bohemia, the Hana Region, and in southern Slovakia, as well as the land adjacent to these areas. The sugar beet acreage was from 18 to 22% of the total arable land. The number of cattle per hectare reached the highest percentage in this area of Czechoslovakia because of the high quality sugar beet fodder; milk production was also relatively high. The area was known for production of barley which was of excellent quality and most of which was exported. Hops were also cultivated in this area and there were also large orchards. Vegetables requiring a warm climate were not cultivated here. The production of wheat was slightly higher than the production of rye. The following special crops were grown in the warmest sections of these areas: brassica napus olei ferra, poppies, and soybeans. Crop yields were usually stable except for very dry years.
6. The potato areas included hilly land and lower mountain slopes. The fertility of the soil on the mountain slopes was quite variable. The main root crop was potatoes, i.e., edible, fodder, industrial, and seed potatoes. The sugar beet acreage decreased proportionately as the altitude became higher. The Ceskomoravska vysocina upland area (N 49-25, E 15-40) was most suitable for reproduction of seed potatoes. In addition to seed potatoes, flax and cabbage were special crops grown in the potato areas. The production of good quality barley was limited; oats was cultivated instead. On the land which was more than 450 m. above sea level rye and oats were the only grains cultivated. In warm areas, apples, plums, and cherries were grown. The potato areas were naturally suitable for raising hogs and cattle. Because of the low production of grain crops, the supply of straw for litter was insufficient; the lack was really serious in unfavorable years.
7. The most significant production in high altitude areas was the raising of cattle on pasture land. Cattle were raised for meat or for later transfer to more fertile areas. The number of cattle per hectare was, however, much lower than in the sugar beet areas -- about 20% compared to 50% of one animal unit per hectare.<sup>1</sup> Sheep bearing coarse wool were also raised in these areas. Rye and oats were the only grain crops cultivated. Among root crops, potatoes and fodder beets were cultivated, the latter being replaced by Swedish turnips in less fertile areas. The high altitude areas also suffered from a lack of straw for litter because almost all of the straw produced had to be used for fodder. Forest rakings and peat were used for litter instead of straw.

#### Discontinuance of Geonomic Practices

1. The purpose of the geonomic survey was to establish the optimum proportional relationship among various crops, not only in a particular area, but within particular farm units as well. The crop rotation system devised by Dr. Ing. Simon (fnu), a part of the geonomic survey, was to serve this purpose. The practical application of his crop rotation systems would, however, result in a

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decrease of the amount of land under grain cultivation by approximately five per cent. In other words, it would amount to a decrease in grain cultivation from 50 to 45% of the total arable land in Czechoslovakia. The principles of the geonomic survey were applied in planning agricultural production along with working out the agricultural land adjustment program; however, responsible Communist circles realized that the principles of the geonomic survey were inflexible and, therefore, incompatible with socialistic planning. Actually, socialistic planning required the ability to regulate, for state purposes, the kind and amount of the crops grown, as well as the areas assigned for cultivation. This ability to regulate production would be paralyzed if the principles of the geonomic survey were put into practice. As a matter of fact, the planning officials would be placed in an embarrassing position when attempting to alter the rules for planting set forth for a particular area in the geonomic survey because the farming units involved could claim that the production as planned would not prove profitable for them because it did not follow the rules which had been stipulated by the geonomic survey. In 1952, a campaign was launched to do away with the geonomic survey as a basis for socialistic agriculture because it did not correspond to the Soviet Michurin theories. In spring 1953, Ing. Frantisek Lom, head of the Department of Agricultural Economics and Accounting at the Agricultural Institute in Brno and one of the leading supporters of the geonomic survey, a Communist on paper only, told his students: "We are going to do away with geonomic practices because we have learned from experiments conducted in the USSR that they are not suitable for socialistic planning. Unfortunately, however, we have nothing with which to replace them".

9. Mixed farming was practiced throughout Czechoslovakia. From the total of approximately 8,000,000 ha. of agricultural land, about 5,000,000 ha. were arable. The percentage of land devoted to particular crops was as follows: from 50 to 52% grain, 18 to 20% root crops, 25 to 27% fodder crops, and a maximum of 5% special crops. These percentages refer to the national average as it became stabilized over a period of time. After the principles of the geonomic survey were abandoned, the trend of the Communist agricultural policy has not indicated that there would be any basic change in the percentage relationships. The only exception was that the Communists were trying to reduce the percentage of acreage used for grain crops to 50% in those areas and on those farm units where the acreage exceeded this amount, excluding the maize areas. This decrease would be effected by decreasing production of rye and oats and increasing production of fodder instead. The Communists did not intend to decrease the production of wheat and barley or sugar beets. Source did not believe that special crops which were introduced by the Communists for trial purposes would affect national percentage figures in the near future.

1. Comment. One animal unit consisted of 500 kg. of meat, live weight, per hectare.

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